

PATENT

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Claims 2, 6, 14, 19, 23, 26, and 31 have been cancelled without prejudice or disclaimer and claim 1, 12, 18 and 29 are amended.

Please amend the claims to read as follows:

1. (Amended) A wireless communication network comprising:
a plurality of nodes, each having at least one dynamically directionally controllable communications link, wherein each of the dynamically directionally controllable communications links comprises one of an electronically steerable narrow antenna beam and a switchable antenna beam; and

a network controller for dynamically changing the direction of the controllable communications links of the nodes to enable transmission of signals between the nodes and wherein the network controller controls the directions of the controllable communications links according to an assignment table that maps time slots to node pairs.

2. Cancel Claim 2

3. The wireless communication network of claim 1, wherein selected ones of the nodes further include an additional dynamically directionally controllable communications link.

4. The wireless communication network of claim 1, further comprising:
a low data rate signaling channel for transmitting control information from the network controller to the nodes.

5. The wireless communication network of claim 4, wherein the signaling channel includes:

a wide-angle antenna beam at each of the nodes.

6. Cancel claim 6

7. The wireless communication network of claim 1, wherein the network

controller changes the direction of the controllable communications links during a guard interval between the transmission and reception of information signals between pairs of the nodes.

8. The wireless communication network of claim 1, wherein each of the nodes includes:

an antenna producing at least one dynamically directionally controllable beam.

9. The wireless communication network of claim 8, wherein each of the dynamically directionally controllable beams is a narrow beam.

10. The wireless communication network of claim 1, further comprising:
means for connecting one of said nodes to a backbone circuit.

11. The wireless communication network of claim 1, wherein at least one of said nodes is a satellite; and at least one other of said nodes is a ground station.

12. (Amended) A method for transmitting communications signals comprising the steps of:

providing a plurality of nodes for receiving communications signals, each having at least one dynamically directionally controllable communications link, wherein each of the dynamically directionally controllable communications links comprises one of an electronically steerable narrow antenna beam and a switchable antenna beam; and

dynamically changing the direction of the controllable communications links of the nodes to enable transmission of the communications signals between the nodes, and wherein the network controller controls the directions of the controllable communications links according to an assignment table that maps time slots to node pairs.

13. The method of claim 12, further comprising the step of:

transmitting control information from the network controller to the nodes on a low data rate control channel.

14. Cancel claim 14

15. The method of claim 12, wherein the network controller changes the

direction of the controllable communications links during a guard interval between the transmission and reception of information signals between pairs of the nodes.

16. The method of claim 12, further comprising the step of:
connecting one of said nodes to a backbone circuit.

17. The method of claim 12, further comprising the steps of:
dynamically spreading the communications signal over multiple routes
among the nodes; and
reassembling the communications signal at a predetermined node.

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18. (Amended) A wireless communication network comprising:
a hub node having at least one dynamically directionally controllable
communications link, wherein each of the dynamically directionally controllable
communications links comprises one of an electronically steerable narrow antenna beam and a
switchable antenna beam;

a plurality of remote nodes, and wherein the network controller controls
the directions of the controllable communications links according to an assignment table that
maps time slots to node pairs; and

a network controller for dynamically controlling the direction of the
communications link to enable transmission of signals between the hub node and the remote
nodes

19. Cancel claim 19

20. The wireless communication network of claim 18, wherein the hub node
further includes an additional dynamically directionally controllable communications link.

21. The wireless communication network of claim 18, further comprising:
a low data rate signaling channel for transmitting control information from
the network controller to the hub node.

22. The wireless communication network of claim 21, wherein the signaling
channel includes:

a wide-angle antenna beam at the hub node.

23. Cancel claim 23

24. The wireless communication network of claim 18, wherein the network controller changes the direction of the controllable communications links during a guard interval between the transmission and reception of information signals between pairs of the nodes.

25. The wireless communication network of claim 18, wherein the hub node includes:

an antenna producing at least one dynamically directionally controllable beam.

26. Cancel claim 26

27. The wireless communication network of claim 18, further comprising:
means for connecting one of said hub nodes and said remote nodes to a backbone circuit.

28. The wireless communication network of claim 18, wherein at least one of said remote nodes is a satellite; and the hub node is a ground station.

29. (Amended) A method for transmitting communications signals comprising the steps of:

providing a hub node for receiving communications signals, the hub node having at least one dynamically directionally controllable communications link;

providing a plurality of remote nodes for exchanging the communications signals with the hub node, and wherein the network controller controls the directions of the controllable communications links according to an assignment table that maps time slots to node pairs; and

dynamically changing the direction of the controllable communications links of the hub node to enable transmission of the communications signals between the hub node and the remote nodes.

30. The method of claim 29, further comprising the step of: